ORALS

Congestive Heart Failure

OP-096

The Short-Term Outcomes of Mitraclip Implantation: Single-Center Experience in Turkey

Hale Ünal Aksu, Nevzat Uslu, Huseyin Aksu, Omer Faruk Baycan, Mehmet Erturk, Abdurrahman Eksik
Istanbul Mehmet Akif Ersoy Thoracic and Cardiovascular Surgery Training and Research Hospital, Istanbul

Background: The aim of this study was to evaluate the procedural success and early outcomes of MitraClip implantation.
Methods: Between July 2012 and February 2013, 15 patients (12 males, 3 females; mean age 60.80±13.03; range from 35 to 78 years old) underwent MitraClip implantation in our clinic were included. All patients had symptomatic severe functional mitral regurgitation with high surgical risk or were judged to be inoperable by heart team.
Results: The success of the procedure was 93.33%. We have successfully implanted MitraClip device to all patients except one. One clip was implanted in 9 (64.28%) patients, and 5 (35.71%) patients were treated with 2 clips. The mean procedure time was 183.84±80.96 minutes (range, 90–300 minutes), with a mean septal puncture time of 36.15±32.09 minutes. Following the procedure, severity of the mitral regurgitation was decreased average 2.10±0.48 grade. Average functional status of the patients improved from NYHA class 3.86±0.35 to 2.58±0.79 at 1 month follow up. Their 6-minute walking distances improved from 276.16±150.71 to 378.00±168.40 meters. N terminal B-type natriuretic peptide levels decreased from 3642.26±3220.01 to 2025.80±810.34 pg/ml. 2 patients (13.33%) died within the first month of follow-up due to noncardiac causes.
Conclusion: The MitraClip procedure can be performed safely to the symptomatic patients with severe functional mitral regurgitation who have otherwise high surgical risk or are judged to be inoperable. Our initial experience demonstrated acute echocardiographic and early clinical improvement in these patients.

Echocardiographic criteria for eligibility of the Mitraclip implantation

Inclusion Criteria	
Coaptation length	> 2 mm
Mobile posterior leaflet	
Posterior leaflet length	> 8 mm
No leaflet calcification on grasping site	
Leaflet thickness	<5 mm
Mitral valve orifice area	>4 cm2
Exclusion Criteria	
Rheumatic valve disease	
Thick interatrial septum	
Active infective endocarditis	
Flail leaflet (not an exclusion criteria if flail gap<10 mm and flail width< 15 mm)	
Presence of cleft	

Baseline Demographics and Clinical Features

Age, years	60.80 ± 13,03
Age >65 years, (%)	6 (40.0)
Male sex, (%)	12 (80.0)
Hypertension, (%)	6 (40.0)
Diabetes mellitus, (%)	5 (33.3)
Creatinine, mg/dl	1.32±0.40
eGFR, ml/min per 1.73 m2	57.66±16.66
History of coronary artery disease, (%)	11 (73.3)
EF, %	28.73 ± 8.75
NT-Pro BNP, pg/ml	3642.26 ± 3220.01
LV end-diastolic diameter, mm	64.85±9.28
LV end-systolic diameter, mm	54.78±10.82

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New Generation Left Ventricular Assist Device for End Stage Heart Failure Therapy: Ege University Experience

Yaprak Engin[1], Tahir Yağdı[1], Özlem Balcıoğlu[1], Çağatay Engin[1], Serkan Ertugay[1], Sanem Nalbantgil[2], İlyas Kultayev[1], Nurjhan Narymbetov[1], Mehdi Zoghi[2], Mustafa Özbaran[1]
[1]Ege University, Department of Cardiovascular Surgery, Izmir, [2]Ege University, Department of Cardiology, Izmir

Introduction: Although heart transplantation is the most important option for end stage heart failure resistant to medical therapy, new generation ventricular assist devices have an increasing popularity in the recent years. The survival advantage provided with these devices and improvement in long term complication rates are the main reason of widespread usage of these devices. In this paper we want to share our experience with the devices which are reported with better results than heart transplantation in some reports.
Material - Method: new generation, long term, continuous flow, intracorporeal left ventricular device implantation was performed between December 2010 and May 2013 for 64 cases with an age average of 47.85. For 56 cases HeartWare and for 8 cases HeartMate II were used. Patients were in class 2 (clinical deterioration while on inotropes), 3 (stable but inotrope dependent) and 4 (resting symptoms with oral therapy) according to INTERMACS (The Interagency Registry for Mechanically Assisted Circulatory Support) classification. While the ischemic etiology rate was % 28.15, dilated cardiomyopathy was the etiology for the majority of the patients. In % 34.37 of the patients there was relative contraindication because of clinical situations like fixed pulmonary hypertension, diabetes with end organ damage and obesity.
Results: In-hospital mortality rate was 10.93% with 7 patients. Extracorporeal membrane oxygenator system was needed for transient right ventricular failure in 3 cases. The most common cause of mortality was multiorgan failure and sepsis due to right ventricular failure. Preoperative cardiogenic shock (INTERMACS 1) was found risk factor for mortality. In long term follow up, 5 cases were bridged to transplantation, three cases were lost (2 intracerebral hemorrhage, 1 pancreatic cancer). Except 1 transient ischemic attack, there was no thromboembolic complication. there were 3 device thrombosis, which of two were treated completely with intraventricular thrombolitic therapy under scopy and one was treated with surgical pump change. The remaining patients still on support are stable and asymptomatic.
Discussion: With the improvements of new generaiton support systems, outcome of these devices are changing for the better day by day and the new generation devices are becoming an alternative therapy competing with heart failure in many hopeless circumstances.

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Ventricular Support Systems for End Stage Heart Failure Patients: Which patient, When?

Yaprak Engin[1], Çağatay Engin[1], Tahir Yağdı[1], Serkan Ertugay[1], Sanem Nalbantgil[2], Mehdi Zoghi[2], Özlem Balcıoğlu[1], Pelin Öztürk[1], Mustafa Özbaran[1]
[1]Ege University, Department of Cardiovascular Surgery, Izmir, [2]Ege University, Department of Cardiology, Izmir

Introduction: The improvements of medical and surgical therapy for heart failure have been increasing especially in the last two decades. With these improvements, the patient profile is changing continuously with an increasing number. Ventricular support systems have been marked a new era in heart failure therapy, a chance of survival until transplantation and a new hope for the patients that are unsuitable for transplantation. The optimal timing of implantation seems to be the most important issue for postoperative success. With this paper, we report our data of ventricular support system implantation timing for heart failure patients and its effects on outcome.
Material - Method: total of 118 heart failure patients which were implanted long term support systems in our institution between 2008 – 2013 were included. The clinical condition of the patients were evaluated with INTERMACS (The Interagency Registry for Mechanically Assisted Circulatory Support) classification. Accordingly, prior to operation, 20.33% of the patients were in INTERMACS 1 (cardiogenic shock), 27,96% were in INTERMACS 2 (clinical deterioration on inotropes), 48,30% were in INTERMACS 3 (inotrope dependency), 2.54% were in INTERMACS 4 (symptoms in resting despite oral therapy).
Results: In-hospital mortality of patients in INTERMACS 1 were 37.5%, in INTERMACS 2 were 18.18%, in INTERMACS 3 were 8.77%, while there was no early mortality in INTERMACS 4 patients.
Discussion: As the clinical deterioration of end-stage heart failure patients deepens, ın-hospital mortality rates rise. For this reason, the referral of these patients to transplantation centers before the development of biventricular heart failure is crucial.